

Center for American Progress Action Fund



Testimony before the U.S. House of Representatives Committee on Ways and Means
on Tax Reform and the U.S. Manufacturing Sector

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Thank you Chairman Camp and Ranking Member Levin for inviting me here today to testify on the effects of tax policy on the U.S. manufacturing sector. My name is Heather Boushey and I'm a Senior Economist at the Center for American Progress Action Fund.

The U.S. manufacturing sector is and will remain vital to our nation's economic prosperity. The rise of American industry made the United States the wealthiest and strongest nation on earth, provided the foundation for a strong middle class, and fueled critical breakthroughs in innovation and technology that transformed our lives and produced previously unimaginable achievements, from the invention of Henry Ford's assembly line to the landing of a man on the moon.

I want to make a two key points in my testimony today:

First, manufacturing is not only a key part of our economy, but moving forward it will remain critical to our nation's economic vitality. A strong manufacturing industry supports solid, middle-class jobs; enables our nation to be a leader in technology and innovation; and can help us address our trade deficit. Economic research is showing that manufacturing is critical to our economic future.¹

Second, there are a variety of ways that policymakers can support manufacturing, of which reforming the corporate tax code is one piece of the puzzle. Manufacturers make their investment decisions based on a variety of factors, not only the level of taxation. The research is clear that any set of policies aimed at supporting U.S. manufacturing should include investments in education and training, infrastructure, basic and applied research and development, and improvements to basic data collection.

To support manufacturing, I recommend that this Congress focus on a few key items:

- Pass comprehensive business tax reform that both eliminates loopholes and inefficient business tax expenditures without disadvantaging domestic manufacturing.² Currently, loopholes allow companies to avoid paying U.S. taxes by artificially shifting their profits offshore. Closing these loopholes by adopting strong provisions to prevent base erosion and will promote job growth in the United States and insure businesses are both competitive and fairly taxed.

- Find a fiscally responsible way to make the research and experimentation, or R&E, tax credit permanent in order to boost and attract domestic investment in research and development, or R&D, from the private sector. Studies have shown that the R&E tax credit stimulates as much research and development investment as a direct subsidy and that the social returns on R&D are greater than returns for private investors who finance R&D.³ The Obama tax proposal finances the credit exclusively through business tax reform.⁴
- Introduce a minimum tax on foreign earnings to prevent production from going to tax havens overseas.⁵ This would also ease the tax code's current bias towards foreign, as opposed to domestic, investment and level the playing field among competing businesses.

I want to stress, however, that the level of taxation is only one piece of the puzzle and the statutory corporate tax rate is only one aspect of the corporate tax code and how it affects businesses. Supporting manufacturing requires a deeper policy commitment and while I will focus my time in my remarks specifically on tax policy, given the jurisdiction of this committee, there are also a variety of other ways that we can promote manufacturing and innovation in the United States—or least not disadvantage it relative to other industries—including:

- Improve infrastructure so that U.S. goods can be more easily transported and marketed at home and abroad. This will also make the U.S. more appealing to businesses and globally competitive.⁶
- Implement the Obama administration's proposal to start an \$8 billion "Community College to Career Fund" to encourage collaboration and partnerships between community colleges and businesses in training our future workforce. Two million workers would learn skills vital to working in burgeoning industries like advanced manufacturing and health care. A highly skilled workforce would also give the U.S. and its regional economies further advantages over its global competitors.⁷
- Increase government investment in advanced manufacturing by 19 percent, to \$2.2 billion in fiscal year 2013, as outlined by the current administration.⁸ Manufacturing workers receive better pay and benefits, while the manufacturing sector is the driving force behind innovation in our economy. Additional investments in this area will benefit workers, improve our standard of living, and strengthen our economy.⁹
- Follow through on President Obama's plan to establish a National Network for Manufacturing Innovation. This network, comprised of up to 15 new manufacturing institutes, would facilitate and promote collaboration between companies and research universities, all with the aim of increasing and scaling up manufacturing production.¹⁰

Having a strong manufacturing industry in the United States should be at the top of our national economic agenda. Without a vibrant and innovative manufacturing base, we will not be a global leader for long. Moreover, as more of our energy future will rely on high-tech manufacturing, our economic competitiveness will be even more closely aligned with our ability to be an innovator and producer of manufactured goods.

Further, this is an urgent national issue and one of those cases where success begets success. Economists have begun to study and show that the “industrial commons” matters for innovation and the extent to which we allow manufacturing processes to continue to go overseas, we only make it that much harder to regain our place as a global leader.¹¹ As my colleagues Michael Ettliger and Kate Gordon have put it, “the cross-fertilization and engagement of a community of experts in industry, academia, and government is vital to our nation’s economic competitiveness.”¹²

Manufacturing is not only a key part of our economy, but moving forward it will remain critical to our nation’s economic vitality

The U.S. manufacturing sector is still a force internationally and an important part of our economy, despite employment losses and the relative rise in manufacturing in other countries over the past few decades.¹³ Last year, manufacturing contributed over \$1.8 trillion to U.S. gross domestic product, or about 12 percent of the economy.¹⁴ Two years ago, manufacturing accounted for 60 percent of all U.S. exports.¹⁵ In 2008, the United States ranked first in the world in manufacturing value added, and it was the third largest exporter of manufactured goods to the world, behind only China and Germany and ahead of Japan and France.¹⁶ Between 1979 and 2010 manufacturing output per hour of labor in the United States increased by an average of 4 percent annually, and the United States has one of the world’s most productive workforces.¹⁷ Moreover, in 2009 there were 11.8 million direct jobs in manufacturing and 6.8 million additional jobs in related sectors.¹⁸ Put another way, one in six U.S. private-sector jobs is directly linked to manufacturing.¹⁹

Yet the industry suffered declines in the 2000s. The U.S. share of worldwide manufacturing value added dropped from 26 percent in 1998 to less than 20 percent in 2007, and we have gone from being a net exporter of manufactured goods in the 1960s to a net importer.²⁰ Manufacturing as a share of U.S. GDP has declined from more than 15 percent in 1998 to 11 percent in 2009.²¹ And jobs in U.S. manufacturing declined from 17.6 million in January 1998 to 11.5 million in January 2010.²² And although the manufacturing sector has gained jobs in every month since then, for a total of 504,000 jobs as of June 2012, its share of total employment is down from 16.8 percent in 1998 to 10.8 percent today.²³

These trends matter because the United States needs a strong manufacturing sector. Manufacturing provides good, middle-class jobs; propels U.S. leadership in technology and innovation, which is critical to our economic growth and vitality; and is important to balancing the trade deficit, as well as important for our nation’s long-term national security.

The manufacturing sector has historically been a source of solid, middle-class jobs and it continues to be so today. The average manufacturing worker earns a weekly wage that is 8.4 percent higher than non-manufacturing workers, taking into account worker and job characteristics that influence wages, including unionization.²⁴ Economist Susan Helper and her colleagues conclude that the economic evidence points to the fact that “the main reason why manufacturing wages and benefits are higher than those outside of manufacturing is that

manufacturers need to pay higher wages to ensure that their workers are appropriately skilled and motivated.”²⁵

U.S.-based manufacturing underpins a broad range of jobs in other industries, including higher-skill service jobs such as accountants, bankers, and lawyers, as well as a broad range of other jobs such as basic research and technology development, product and process engineering and design, operations and maintenance, transportation, testing, and lab work.²⁶ Compared to jobs in other economic sectors, manufacturing jobs have the highest “multiplier effect,” that is, the largest effect on the overall economy for each job created, relative to jobs in other industries. To put this in perspective, each job in motor vehicle manufacturing creates 8.6 indirect jobs, each job in computer manufacturing creates 5.6 indirect jobs, and each job in steel product manufacturing creates 10.3 indirect jobs.²⁷

Manufacturing is also important because it fuels the United States’ leadership in technology and innovation, which are critical to maintain for our future economic competitiveness.²⁸

Manufacturing firms are more likely to innovate than firms in other industries: Research from the National Science Foundation finds that 22 percent of manufacturing companies are active innovators compared to only 8 percent of nonmanufacturing companies.²⁹ This number is even higher for specific sectors within manufacturing. For example, in computer and electronic products manufacturing, 45 percent of companies are product innovators and 33 percent are process innovators.³⁰ Manufacturing firms also perform the vast majority of private research and development: Despite comprising just 12 percent of the nation’s GDP in 2007, manufacturing companies contributed 70 percent of private research and development spending.³¹

In addition to what manufacturers spend on innovation, there is increasingly strong empirical evidence showing a tight link between innovation and manufacturing production. Economic research now shows that the United States will not likely be able to keep the highly skilled technical jobs if the production jobs go overseas. Harvard Business School professors Gary Pisano and Willy Shih have written about the decline of the “industrial commons” in the United States: the collective R&D, engineering, and manufacturing capabilities that mutually reinforce each other to sustain innovation.³² For many types of manufacturing, geographic proximity is key to having a strong “commons,” and they point to evidence showing that there are few high-tech industries where the feedback loop from the manufacturing process is not a factor in developing new products.³³ As they put it, “product and process innovation are intertwined.”

Pisano and Shih point to the example of rechargeable batteries as a product where innovation followed manufacturing. Rechargeable battery manufacturing left the United States many years ago, leading to the migration of the batteries commons to Asia. Now new technology (batteries for hybrid and electric vehicles) are being designed in Asia where the commons are located. I’d draw your attention to a January *New York Times* article on China’s increasing investment in research and development, which asked, “Our global competitiveness is based on being the origin of the newest, best ideas. How will we fare if those ideas originate somewhere else?”³⁴

Finally, manufacturing matters because it is an important part of our trade deficit, which in turn has implications for our macroeconomy. The United States has had a trade deficit in almost every year since 1971 and the size of those deficits has grown over time. The trade deficit was at

\$727 billion in 2011, having never topped \$300 billion prior to 2000.³⁵ Running a trade deficit over many years can have the effect of slowing economic growth, increasing unemployment, and risking economic instability. And, eventually, the U.S. will need to grow to pay back the debt we have incurred. The U.S. trade balance in high tech began to decline in 2000 and became negative in 2002.³⁶

The trade deficit can come down in a variety of ways, but it is hard to see significant progress without manufacturing playing an important role. Brookings Institution economists Susan Helper and Howard Wial with researcher Timothy Krueger calculated that the United States could eliminate its trade deficit by 2019 through service exports alone only if service exports grew at an annual rate of 13.5 percent, compared to their annual growth rate from 2001 to 2010 of 7.9 percent.³⁷ According to their analysis, it would be easier to balance the trade deficit by with manufacturing exports alone, as manufacturing exports would need to grow at an annual rate of 9.3 percent, compared to their 2001-2010 annual growth rate of 6 percent.³⁸

There are a variety of ways that policymakers can support manufacturing, of which reforming the corporate tax code is one piece of the puzzle

The goal of this Congress should be to support U.S. manufacturing in ways that generates U.S. jobs and helps to locate the United States as an innovation leader. While taxation may be part of this agenda, it is far from the only part. For too long we have allowed this one aspect of how to grow our economy and support U.S. manufacturing to overshadow all others. Yet, the research is clear that any set of policies aimed at supporting U.S. manufacturing should include investments in education and training, infrastructure, basic and applied research and development, and improvements to basic data collection. Further, as economist Susan Helper and her colleagues have noted, the focus should include encouraging workers, employers, and unions, and government to share the responsibility for improving the manufacturing base.³⁹

I want to stress that the level of taxation is only one piece of the puzzle and the statutory corporate tax rate is only one aspect of the corporate tax code and how it affects businesses. I urge you to keep in mind the *reason* we tax. Tax revenues fund public goods that U.S. corporations and global corporations that do business in the United States benefit from and which otherwise would not exist. For that reason, when considering levels of taxation, it is equally important to weigh the benefits of the public goods and services made possible with taxpayer dollars. When it comes to creating good manufacturing jobs in the United States, I will argue that government spending plays a critical role in setting the stage for economic growth.

First, investments in education and worker training are critical to ensuring that manufacturers can find skilled workers to make their products. In a recent survey conducted by Accenture, 61 percent of companies indicated that they are considering more closely matching supply location with demand location, which means products for the U.S. market are increasingly likely to be made in the United States.⁴⁰ However, these same companies also expressed that they are concerned about the availability of a skilled workforce in the United States.⁴¹ Another survey by Deloitte documents a growing skills gap in manufacturing.⁴² Of companies surveyed, 67 percent reported a moderate to severe shortage in qualified workers overall and 83 percent reported a moderate to serious shortage of skilled production workers; the majority expect this gap to

worsen over time.⁴³ While companies can and should do more to train workers, it also makes sense for the country to boost investments in workforce training and education.⁴⁴ Instead, the House approved a budget that would actually cut investments in education and training by 48 percent per capita over 2010 levels.⁴⁵

Second, there is broad bipartisan consensus that a strong national infrastructure network is crucial to the success of the manufacturing sector and overall economic growth. Without an adequate infrastructure system, manufacturers face longer delivery times, more money wasted on gasoline as delivery trucks get stuck in traffic, rising energy costs, and more frequent power outages. But U.S. infrastructure has been woefully underfunded in recent years, to the great detriment of our manufacturing competitiveness. The Center for American Progress has written extensively about the need to repair our aging roads, bridges, water, and other key public assets.⁴⁶ About one-in-four bridges in the country is structurally deficient or functionally obsolete.⁴⁷ Inadequate freight rail means that our highways are clogged with both trucks and passenger vehicles, making transporting goods inefficient and costly.⁴⁸ Our strained electrical grid contributes to an increasing frequency of debilitating blackouts.⁴⁹ The repercussions of this failing infrastructure system to U.S. competitiveness are severe: according to the World Economic Forum's *Global Competitiveness Report*, the United States now ranks 24th on key global indicators for infrastructure quality among 142 nations, down from 8th in 2006.⁵⁰

In order to revitalize our infrastructure and enhance our global manufacturing competitiveness, the Center for American Progress has recommended a set of critical reforms, starting with increasing the nation's infrastructure investment by \$129 billion a year over the next 10 years.⁵¹ Doing so will bring our crumbling infrastructure system up to par, helping to improve manufacturing productivity and ensure that manufacturers have the transportation network to efficiently bring their goods to market.⁵² Instead, this House has opted to pass a budget that would cut transportation infrastructure investments per capita by 28 percent over 2010 levels.

Third, funding adequate investments in research and development is necessary to promote U.S. manufacturing jobs.⁵³ The relationship between basic research and development, commercialization, and the manufacturing sector is critical: the microwave, the photovoltaic cell, and the Internet, just three of a host of inventions, all came out of Department of Defense investments in basic research and development, without which they may have taken years or decades longer to be invented and commercialized.⁵⁴ Yet federal research budgets have diminished in recent decades relative to GDP growth.⁵⁵ Investments in science and technology research provide a critical basis for manufacturing innovation, but the House has instead voted for a budget that would reduce research and development spending per capita by 24 percent over 2010 levels.⁵⁶

Finally, improving federal data collection and competitiveness coordination is important to supporting U.S. manufacturing.⁵⁷ One of the biggest barriers to the United States developing a more robust set of policies to support manufacturing is that policymakers do not have a clear idea of what this country already produces and there is little coordination between the many government agencies and programs that focus on basic competitiveness.⁵⁸ For example, under the current systems of measurement, "it is not now possible to know how many jobs in the Detroit region are actually tied to the manufacturing industry."⁵⁹ We should reform our

insufficient statistical system to assess the competitiveness of key traded industries,⁶⁰ to adequately measure intermediate outcomes that influence competitiveness,⁶¹ to improve the analysis of factors that influence competitiveness,⁶² and to improve evaluation of competitiveness programs.⁶³ Congress should also grant President Barack Obama the authority to reorganize the government to streamline federal competitiveness efforts by consolidating the following six agencies into one department: U.S. Department of Commerce's core business and trade functions, the Small Business Administration, the Office of the U.S. Trade Representative, the Export-Import Bank, the Overseas Private Investment Corporation, and the U.S. Trade and Development Agency.⁶⁴ Taking these steps is an inexpensive way to ensure that we are guided by the best, most accurate information when making manufacturing policies.

Creating a climate for the United States to be globally competitive requires that we make investments toward this goal. It is through this lens that we need to evaluate tax policy. As we think through how to construct a tax system that encourages manufacturing and other economic activity, we must balance the need for revenues to fund public goods that otherwise would not exist, alongside the distortions that taxes create. If our tax code cannot be reformed to raise additional revenue, the resulting deficits will drive debt-to-GDP ratios to unsustainable levels under any realistic spending scenario, with negative repercussions for the U.S. economy over the long term.

The fact is that we need to increase our revenues. Our current tax code is inadequate to fund our national needs without accumulating more debt and the problem is not one of accelerated spending, but rather of declining revenues. In the 1950s corporate taxes contributed about 30 percent of federal revenues, but have steadily declined and now average only about 10 percent of federal revenues.⁶⁵ With the diminishing corporate tax the United States has relied more heavily on other taxes, in particular payroll taxes on wages, which have risen from about 12 percent of federal revenues during the 1950s to about 40 percent of revenues today.⁶⁶ The increasing share of business activity being conducted via "pass-through" entities, including S corporations and LLCs is partly responsible for the decline in corporate tax revenues. But also responsible is the fact that corporations are paying lower effective tax rates on their profits than they did in the recent past.

The good news is that there is room for revenue-positive tax reform, including revenue-positive reform of the corporate tax code. The corporate tax is the third largest federal revenue source, behind individual income and payroll taxes. While the statutory corporate tax rate is 35 percent, the second highest in the OECD, the better measure of the actual tax paid by corporations is their effective rates.⁶⁷ Recent studies have found that the effective rates of large U.S. corporations are in line with or actually lower than their foreign counterparts.⁶⁸ In fact, corporate taxes represent a smaller portion of GDP in the United States than in other OECD economies.⁶⁹

In thinking through any reform, however, we need to bear in mind a number of key issues specific to manufacturing and whether the goal of a 26 percent rate for all industries is achievable. The Joint Committee on Taxation has said that eliminating nearly all major tax expenditures to lower the corporate rate in a revenue neutral way would allow us to get the rate to 28 percent, but not to 25 percent and if we are to increase revenue, this should be carefully targeted.

The mantra of “lower the rate, broaden the base in a revenue-neutral way” may in fact do the most harm to domestic manufacturing. Repealing tax expenditures and lowering the rate would increase, not decrease taxes on manufacturing firms. Writing for *Daily Tax Report*, Gerald Prante, Robert Carroll, and Tom Neubig found that:

...the biggest winners from using repeal of business tax expenditures to lower business tax rates to approximately 28 percent would be the retail and wholesale trade, information, transportation, finance and insurance, and services industries. Rate reduction would more than offset the loss of benefits from their tax expenditures.⁷⁰

Congress should consider carefully whether this kind of reduction serves our national economic goals. First, it is not clear that that we should continue to privilege finance over other industries and retail and wholesale trade are, by their nature, geographically constrained. In a fiscal environment where we are already facing large and growing budget deficits, we need to make sure that our tax policy both brings in sufficient revenue and focuses on supporting our manufacturing base.

Prante, Carroll, and Neubig go on to note that while

... eliminating all business tax expenditures would disproportionately hit the manufacturing industry, especially those manufacturers with multinational operations. ... Within manufacturing, durable goods manufacturers, especially those with a multinational presence, would be the biggest losers, requiring a far greater reduction in the corporate tax rate to break even.⁷¹

This is consistent with analysis by economist Martin Sullivan in his analysis of lowering the rate in a revenue-neutral way, which found that this approach will be detrimental to domestic manufacturing. His analysis concluded that the biggest winners would be securities (net reduction of 12.3 percent), insurance (-11.9 percent), credit intermediation (-10.2 percent), and retail trade and bank holding companies (-10.1 percent each), while metal, minerals, and machinery manufacturing would see its net taxes rise by 7.3 percent and computers and electronics would see net overall taxes rise by 33.0 percent.⁷²

Second, tax reform should put an end to any bias toward foreign over domestic investment. The Government Accountability Office has found that the effective tax rate that U.S. corporations pay on their foreign profits is 16.2 percent, about two-thirds of the tax rate on their domestic profits, which they estimate to be 25.2 percent.⁷³ Tax reform must level the playing field, not further tilt it against investment in the United States.

An initial, critical step to correcting this bias is to stop the drain of profits into offshore tax havens. Moving to a territorial tax system, especially without adequate safeguards, would make the problems worse. The discussion draft circulated by Chairman Camp admirably acknowledges the need for anti-tax haven rules. In seeking ways to pay for a corporate tax rate cut, the committee should be wary that many tax expenditures benefit domestic investment and eliminating them to pay for a corporate rate cut could actually make investment in the United

States less attractive from a tax perspective. That's why the best way to broaden the tax base is to crack down on offshore loopholes.

Third, tax reform should reflect our national economic priorities and support long-term U.S. competitiveness. In this regard we are long overdue for a review of the growing number of special tax breaks, or "tax expenditures." The tax code contains permanent tax breaks to subsidize oil and gas, even though with oil hovering above \$100 per barrel, there is no clear economic need for subsidies, while the tax breaks for alternative energy—which would not only help our nation lead the world in addressing the warming planet, but also support U.S. manufacturing in cutting-edge technologies—are merely temporary. This should be reversed.

There are real opportunity costs to tax expenditures and those that serve no policy purpose, like those for hedge funds and private equity fund managers (carried interest), should also be eliminated. Tax breaks that have a worthy public purpose and solid economic rationale, such as the domestic production deduction (section 199), should be reviewed to make sure they are well targeted and serving their purpose in a cost-efficient way. The president has proposed targeting that deduction more narrowly at manufacturing and advanced manufacturing, where there are the most spillover benefits.

The research credit also has a strong policy rationale.⁷⁴ Congress should find a way to pay for a permanent or at least long-term extension rather than renewing it every year, sometimes retroactively.

Maintaining current revenue levels will only lead to continued deficits and more debt, while sacrificing the kinds of investments needed to meet basic needs and support manufacturing and economic competitiveness more generally. If our tax code cannot be reformed to raise additional revenue, the resulting deficits will drive debt-to-GDP ratios to unsustainable levels, with long-term negative repercussions for the U.S. economy. As Treasury Secretary Geithner said in a *Bloomberg* interview recently:

One thing we can do is change our tax system so we're creating more powerful incentives for companies to invest here, because, again, we want the stuff that the world needs, stuff Americans are uniquely good at, to be produced in the United States by American companies and by foreign companies.⁷⁵

Given the important place of domestic manufacturing in our economy, this seems like the right goal.

Endnotes

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- ⁵ Seth Hanlon, "Why We Need A Minimum Tax on U.S. Corporations' Foreign Profits," (Washington: Center for American Progress, 2012) http://www.americanprogress.org/issues/2012/02/corporate_profits.html
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- ⁸ Remarks at "the Future of Manufacturing" Conference at Mit.
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- ¹⁸ "The Facts About Modern Manufacturing", (Washington DC: The Manufacturing Institute, 2009, p. 1-55).
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- ²¹ Bureau of Economic Analysis, "Gross Domestic Product by Industry: Value Added by Industry as Percentage of Gdp," (Washington DC2011).; Bloom and others.
- ²² Bureau of Labor Statistics, "Employment, Hours, and Earnings from the Current Employment Statistics Survey (National)," ed. Department of Labor (Washington DC2012).
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- ²⁵ Susan Helper, "Renewing U.S. Manufacturing: Promoting a High-Road Strategy" (Washington, DC: Economic Policy Institute, 2008).
- ²⁶ Ettliger and Gordon, "The Importance and Promise of American Manufacturing".
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- ³¹ Gregory Tasse, "Rationales and Mechanisms for Revitalizing Us Manufacturing R&D Strategies" (Washington: National Institutes of Standards and Technology, 2009).
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- ⁴⁴ Bloom and others.
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- ⁴⁹ Ibid.
- ⁵⁰ Xavier Sala-i-Martin, "The Global Competitiveness Report, 2011-12" (Geneva, Switzerland: World Economic Forum, 2011).; Augusto Lopez-Claros, "Top Performers in the Nine Pillars of the Global Index, Executive Summary Global Competitiveness Index, 2005-2006" (World Economic Forum, 2005).
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- ⁵³ Ibid.
- ⁵⁴ Ibid.
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- ⁵⁸ CAP has written extensively about ways to improve federal data collection and competitiveness coordination. See Andrew Reamer, "Economic Intelligence: Enhancing the Federal Statistical System to Support U.S. Competitiveness" (Washington: Center for American Progress, 2012); Jonathan Sallet and Sean Pool, "Rewiring the Federal Government for Competitiveness: A New Cabinet Department for the 21st Century" (Washington: Center for American Progress, 2012).
- ⁵⁹ Reamer, "Economic Intelligence: Enhancing the Federal Statistical System to Support U.S. Competitiveness", p. 18. He explains "The Bureau of Economic Analysis says that in 2000 the Detroit metropolitan area had 467,000 manufacturing jobs, according to the SIC system, and that in 2001 the area had 371,000 manufacturing jobs, according to NAICS, a decrease of 97,000. In 2001, the region also had 44,000 jobs in the management of companies and enterprises, a category that did not exist in 2000. Other SIC manufacturing jobs shifted to NAICS categories such as transportation and warehousing. In contrast, the Bureau of Labor Statistics shows a NAICS-consistent change in manufacturing jobs of 392,000 to 359,000 between 2000 and 2001, a 32,000 job decline (BLS converted SIC data to NAICS back to 1990). BEA data include the self-employed, which tends to make its numbers a bit higher. That BEA's job decline number is three times that for BLS can be attributed to the classification change. Under NAICS, then, it is now not possible to know how many jobs in the Detroit region are actually tied to the manufacturing industry."
- ⁶⁰ For example, "the Department of Labor should request, and Congress should approve, funds for BLS to create an input price index to more accurately measure manufacturing productivity." Ibid.
- ⁶¹ For example, "Congress should provide the Census Bureau with funds sufficient to conduct the 2012 economic Census." Ibid.
- ⁶² For example, "the National Center for Science and Engineering Statistics should provide a current, complete, detailed picture of R&D expenditures for the nation, states, and regions." Ibid.
- ⁶³ For example, "the Census Bureau should create a program to use the Longitudinal Business Database to assess the impact of program support to individual firms in terms of survival, revenues, jobs, exports, innovation, and other outcomes related to competitiveness." Ibid.
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